

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
ANNUAL REPORT ON GOALS, OBJECTIVES AND POLICIES

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The goals and objectives stated in this report are long-termed, and are not limited by the existing budget. It charts a direction to improve the efficiency and effectiveness of State operations through the application of technology. Additional funding and resources will be needed to accomplish all of the goals and objectives contained herein. The division's priority is to maintain the existing level of services, but will strive to accomplish as many of the goals and objectives as possible within the budget and resources granted.

I. Goal

Assess and redefine ICSD's services to support the State's current and future business requirements. Emphasis will be placed on the cost-effective and efficient application of information and telecommunications technologies to improve the long-term effectiveness and efficiency of Hawaii State Government (State).

II. Objectives and Policies

- A. #1 - Improve the management of information technology initiatives and projects in the State, with enhancements such as up-to-date information technology strategic plans, standards and guidelines, project management plans, and status reports.
- B. #2 - Expand and enhance the State's intranet infrastructure to establish a browser-based environment that supports multiple computer platforms; develop, implement, and support web-enabled application systems and electronic messaging capabilities to conduct State business over the intranet.
- C. #3 - Transform primary roles of ICSD staff from maintenance to professional information technology services, including technical

consulting; requirements studies; specification and design for applications, computers, networks, and other technologies.

- D. #4 - Expand and support the State's telecommunications infrastructure to enable connectivity from State offices to host computers for the State's application systems.
- E. #5 - Enable more use of the Internet for productivity gains such as improving interoffice communications, gaining access to more information sources, enhancing the public's access to government information and services, and electronic commerce.
- F. #6 - Accommodate changes in centralized computing technologies and workload growth, while maintaining reliability, cost-effectiveness and efficiency.

### III. Action Plan with Timetable

- A. Objective/Policy #1 - Improve the management of information technology initiatives and projects in the State, with enhancements such as up-to-date information technology strategic plans, standards and guidelines, project plans, and status reports.
  - 1. Required Actions
    - a. Establish a planning process for information technology initiatives and projects in the State.
    - b. Establish a process to register information technology initiatives and projects, monitor for compliance with State standards, and track progress.
    - c. Establish a process to set or modify information technology standards and guidelines.
    - d. Develop a service to facilitate the implementation of information technology initiatives and projects.

- e. Coordinate all of the above actions with the Governor's technology advisor in the Office of the Governor.
- 2. Past Year Accomplishment – Not much progress was made beyond the initial IT project reports. The ICSD's role in IT planning, development of policies and standards, and approval of IT projects for the State is unclear. The ICSD is actively involved with the Governor's IT team in supporting the Administration's initiatives.
- 3. One Year
  - a. Review the current policies and processes with the Governor's IT team to address the issue of roles in the State's IT program. This review would include all policies currently in effect, including AD 77-2, ICS 90-1, and AD 87-1.
  - b. Develop processes and evaluate resources required, such as staffing and budgets, to implement the policies that result from this review.
- 4. Two Years – Continue with evaluation and refinement of the processes and services.
- 5. Five Years – Continue with evaluation and refinement of the processes and services.
- B. Objective/Policy #2 - Expand and enhance the State's intranet infrastructure to establish a browser-based environment that supports multiple computer platforms; develop, implement, and support web-enabled application systems and electronic messaging capabilities to conduct State business over the intranet.
  - 1. Required Actions
    - a. Establish connectivity of State agencies to intranet (NGN) for access to application services.

- b. Establish application development standards for the intranet.
- c. Expand Internet/email acceptable use policies for conducting electronic business on the intranet.
- d. Revise various State rules and regulations to authorize the use of electronic technologies, such as digital signatures, to transact its daily business.
- e. Continue to revise various State business processes, such as the issuing and processing of purchase orders, to accommodate a conversion from paper to electronic media.
- f. Continue with implementation of Lotus Notes, the State's electronic messaging standard.

2. Past Year Accomplishments

- a. Infrastructure for State intranet has been completed (Phases I and II of NGN project). TCP/IP is being implemented as the network protocol standard for NGN, the State's intranet. Microsoft Internet Explorer and Netscape browsers are the de-facto standards for the intranet.
- b. State e-gov team has been assembled with exempt hire staff to focus on implementation of electronic government in the State.
- c. Phase I of Lotus Notes, for Cabinet and staff, has been completed. Wang Office email users have been converted to Notes. CcMail users are being converted to Notes.
- d. ICSD staff has received hands-on experience and mentoring in the development of Notes workflow applications.

- e. The capability to access IBM mainframe applications over the intranet in IP (Internet Protocol) mode has been implemented.
  - f. The electronic purchase order portion of the project to issue and process purchase orders electronically has been completed. The Lotus Notes workflow part is scheduled for completion by December 2001.
  - g. Developed acceptable use policies for Internet access and email for ICSD.
  - h. Implementation of digital signatures to transact daily State business is being reviewed by Governor's IT Team.
3. One Year
- a. One of the primary tasks of the e-gov team will be to coordinate and facilitate the connectivity of State agencies to the intranet.
  - b. Continue with addition of Lotus Notes users and begin development of other Notes services such as document management and workflow applications.
  - c. Upgrade software and expand capacity of intranet servers to accommodate new applications.
  - d. Upgrade desktop computing capabilities to implement electronic messaging services.
  - e. Train ICSD staff on new technologies they will be required to work with such as UNIX, relational database application builders, web development tools, and network concepts and protocols.
  - f. Identify and pursue funding and resources to accomplish the tasks described above. Review existing staff and organization to assess optimization alternatives.

4. Two Years
  - a. Continue with implementation of Lotus Notes users and development of services.
  - b. Maintain hardware and software levels for the intranet equipment to ensure optimum availability of the services.
  - c. Upgrade hardware as needed to expand processing and repository capacities, to accommodate additional users and applications that are implemented on the intranet.
  - d. Provide staff with periodic refresher training to maintain currency of their technical expertise.
  - e. Continue to review State rules, regulations, and business processes for changes required to enable migration to electronic means.
5. Five Years – Monitor usage and make improvements and adjustments as needed.

- C. Objective/Policy #3 - Transform primary roles of ICSD staff from maintenance to professional information technology services, including technical consulting to State agencies; requirements and feasibility studies; specification and design for applications, computers, networks, and other technologies.

It is anticipated that a reversal of the current trend, where most of the technical consulting is outsourced, to that of outsourcing more of the maintenance work, would result in substantial savings for the State.

Funds will be needed to invest in training and tools to initiate and implement this objective. Beginning in second year, funds will also be needed to outsource maintenance, when staff assumes new responsibilities. The savings anticipated from reduced dependence on high-priced consultants will begin to be realized.

1. Required Actions

- a. Staff will need to be trained and provided with the tools to perform their new responsibilities.
- b. Policies will have to require Executive Branch agencies to use ICSD's consulting services, and ICSD will have to market confidence in its capabilities in order for the State to realize the proposed savings.

2. Past Year Accomplishments

- a. Progress has not been as fast as desired, mainly due to higher priorities and fluctuating workloads. Due to our limited staffing level, urgencies regarding current services took precedence over this effort.
- b. Training for the staff in current application development technologies has been initiated, and is continuing.
- c. Planning and coordination for the development of new application systems between ICSD and the departments have been initiated.
- d. Development equipment and tools have been acquired to provide ICSD staff with hands-on experience.
- e. More advanced and diverse training is being researched and pursued.

3. One Year

- a. Train ICSD staff in subjects such as project management; estimation methodology; network fundamentals, data management fundamentals, protocols, and design; and customer service.
- b. Strive to fill all vacancies.
- c. Acquire tools including computer software and reference books or services.

- d. Redescribe position descriptions.
    - e. Review reorganization alternatives.
    - f. Continue providing maintenance services.
    - g. Strive to have ICSD staff undertake more projects including application development, and network design and specification, and consultant to State agencies.
  - 4. Two Years
    - a. Have staff develop and implement most applications and services on the intranet.
    - b. Determine scope of maintenance to be outsourced if necessary; prepare bid specifications and issue bid; manage maintenance contractors.
    - c. Staff to begin providing consultant services to State agencies, including serving as account managers for them.
  - 5. Five Years – Continue to provide staff with refresher training to remain current with changing technologies, standards, and methodologies. To be effective as alternatives to private consultants, their knowledge and skill levels need to be kept near that of private consultants.
- D. Objective/Policy #4 - Expand and support the State's telecommunications infrastructure to enable connectivity from State offices to host computers for the State's application systems.
- 1. Required Actions
    - a. Expand and upgrade the capacity of the Hawaii Wide Area Integrated Information Access Network (HAWAIIAN).



- b. Expand and enhance NGN (Next Generation Network), the State's intranet.
- c. Expand network connectivity to State offices and workstations.
- d. Enhance and expand video capabilities for intrastate, interstate, and international communications.
- e. Establish desktop video conferencing for local, national, and international communications.
- f. Expand and enhance telephone services.
- g. Provide a survivable, fault tolerant backbone for land mobile radio interconnection based on the HAWAIIAN.
- h. Provide a statewide radio communications system that provides services for, and supports the State's communication needs for public safety, emergency services, natural resource protection, and others.

2. Past Year Accomplishments

- a. \$3M request to continue the implementation of the NGN infrastructure was granted by the Legislature.
- b. Phases I and II of the NGN telecommunications infrastructure, covering Oahu and neighbor islands, were completed on time and within budget. The NGN is now the State's first true, secured intranet.
- c. Gigabit ethernet switched technology has been being implemented in the NGN infrastructure.
- d. A policy that governs security measures for connectivity to the intranet, and information on computer systems has been established.

- e. \$6.2M request to develop microwave sites for the joint State-Federal Rainbow System upgrade project was granted by the Legislature. Project has been initiated.
  - f. Worked with UH on the development of a shared microwave facility on Molokai for the State's HAWAIIAN and UH's HITS statewide microwave systems.
  - g. Requested funding for HAWAIIAN microwave sites structure and equipment upgrades and enhancements.
3. One Year
- a. Monitor the performance and functionality of NGN. Make necessary adjustments to enhance its operation and meet requirements as they evolve.
  - b. Study new connectivity options to expand the video conference capabilities.
  - c. Continue working on development of microwave sites for Rainbow System upgrade.
  - d. Continue working with UH on construction of the HAWAIIAN-HITS microwave facility on Molokai.
  - e. Survey HAWAIIAN microwave sites for structure and equipment upgrades and enhancements.
  - f. Issue RFP for State long-distance calling services.
  - g. Issue RFP for State telephone system.
  - h. Evaluate alternatives for a statewide radio communications system for State agencies. Develop requirements for these alternatives.
4. Two Years

- a. Continue with establishing connectivity to NGN from State agencies and other government jurisdictions.
    - b. Study and design of interoperability solution for public safety and emergency response radio systems.
  - 5. Five Years - Continue support, connectivity, and enhancement of the NGN depending on requirements and funding.
- E. Objective/Policy #5 - Enable more use of the Internet for productivity gains such as improving interoffice communications, gaining access to more information sources, enhancing the public's access to government information and services, and electronic commerce.
  - 1. Required Actions
    - a. Develop and implement a computer and network security strategy, including firewalls and other security equipment, to protect the State's assets from attacks through the Internet.
    - b. Establish acceptable use policies for State staff using the Internet.
  - 2. Past Year Accomplishments
    - a. Continued to coordinate efforts with the State's contractor and State agencies to implement services accessible by the public, through the State's Internet portal.
    - b. Acquired server equipment to increase the storage capacity of the State's web servers to accommodate more public information.
    - c. Initiated changes to State network configurations to improve security of internal services, data repositories, web servers, and other assets from unauthorized access.

- d. A security policy for information and connectivity to the State's intranet, NGN (Next Generation Network), was developed and implemented with the assistance of the SWITCH committee.
    - e. An acceptable use policy for email and Internet was developed for ICSD use.
  - 3. One Year
    - a. State agencies are already being provided access to the Internet, but the security measures deployed are done individually. Agencies are working on better coordination.
    - b. Implement and migrate to server equipment acquired to increase the storage capacity of the State's web servers to accommodate more public information.
    - c. Provide technical training and mentoring for support staff to enable them to further develop the quality and content of the State's websites. Continue to work towards compliance with guidelines on access by the disabled.
    - d. Continue to coordinate with State agencies, through SWITCH, on the feasibility of establishing a State level acceptable use policy for email and Internet. Several State agencies have such a policy in place.
  - 4. Two Years – Monitor usage and make improvements and adjustments as needed.
  - 5. Five Years – Monitor usage and make improvements and adjustments as needed.
- F. Objective/Policy #6 - Accommodate changes in centralized computing technologies and workload growth, while maintaining reliability, cost-effectiveness and efficiency.

1. Required Actions

- a. Implement an Emergency Power Continuation Plan.
- b. Expand network monitoring and support coverage to 24 hours per day, seven days a week, including holidays.
- c. Expand the automation of computer and network operation and management.
- d. Implement alternative technologies for producing computer output.
- e. Implement on-line production documentation.
- f. Initiate processes to design and build a second computer and network site as part of disaster recovery.
- g. Expand network monitoring to all networks in State government, including wide area, and local area networks, and Systems Network Architecture.
- h. Implement point of capture or automated data entry facilities.

2. Past Year Accomplishments

- a. An uninterruptible power supply (UPS) system for the State data center has been installed and is operational. This UPS will protect the computer equipment in the State data center from momentary loss of, and fluctuations in the commercial power source that services the data center.
- b. A CIP project to develop and install an emergency generator system has been initiated, and an architect has been selected. It will serve as a backup source of power for the data center.

- c. The reorganization plan to expand the operation of the Assistance Center to 24 X 7 has received preliminary approval.

3. One Year

- a. Continue work on this project to develop and install an emergency generator system.
- b. Work on details of the reorganization, such as position description updates, of the Assistance Center for the expansion to 24 X 7 operation.
- c. Work on plan to identify, design, and/or develop backup data center sites for storage management and emergency/disaster recovery purposes.
- d. Initiate project to assess alternative technologies for producing computer output, and enabling on-line access to them.
- e. Continue assessing alternative systems for expanding network monitoring to various networks in State government.

4. Two Years

- a. Continue work on this project to develop and install an emergency generator system.
- b. Continue work on development of backup data center sites for storage management and emergency/disaster recovery purposes.
- c. Continue evaluation of State requirements, and centralized operations for information processing, telecommunications services, and IT support.

5. Five Years - Continue evaluation of State requirements, and centralized operations for information processing, telecommunications services, and IT support.

#### IV. Performance Measures

- A. Customer Satisfaction measure – The year following the implementation of a project, an annual survey of user agencies will be developed and distributed.
- B. Program Standard measure – Standards comparable to other jurisdictions will be formulated and monitored for new projects as they are implemented.
- C. Cost Effectiveness Measure – Annual costs will be monitored and any significant variance in expenditures will be evaluated and addressed as necessary.